




S1 Physics Unit 2: Energy and Heat - Learning Outcomes

| Heat and Energy |  |  |  |
|---|---|---|---|
| Energy | | | |
| I can name several types of energy. | | | |
| I can state the law of conservation of energy. | | | |
| Heat | | | |
| I can describe the difference between heat and temperature. | | | |
| I can describe how particles are organised in solids, liquids and gases. | | | |
| I can state examples of good heat conductors. | | | |
| I can state examples of heat conductors. | | | |
| I can state examples of heat insulators. | | | |
| I can state that heat travels by convection in liquids and gases. | | | |
| I can describe that convection is the rising of hot particles and the falling of cold particles. | | | |
| I can state that heat travels by radiation through free space. | | | |
| I can describe that radiation is the transfer of heat using invisible waves. | | | |
| I can state that heat insulation can be used to reduce heat loss by radiation. | | | |
| I can state examples of insulators. | | | |
| I can state that heat insulation can reduce heat losses in the home. | | | |
| I can describe methods of reducing heat loss from a house | | | |
| Energy generation | | | |
| I can describe the advantages and disadvantages of various forms of energy generation. | | | |
| I can describe the advantages and disadvantages of using solar cells to generate electricity. | | | |
| I can describe the effect of the number of solar cells on the amount of electricity generated by a collection of solar cells. | | | |
| I can describe the effect of light level on the amount of electricity generated by a collection of solar cells. | | | |
| I can use my understanding of electricity generation to design an energy solution for an imaginary island. | | | |